# Remarks

Applicants respectfully request reconsideration of the above referenced application in light of the Amendment submitted herewith and the Remarks that follow. Claims 2-20 and 22-40 are now pending in this application.

In the Office Action dated July 5, 2007, the Examiner objected to claims 1-6, 13 and 33. The Examiner rejected claims 1-40 under 35 U.S.C. 112, second paragraph, as being indefinite. The Examiner also rejected claims 1-4, 13-16, 18-24, 33-36 and 38-40 under 35 U.S.C. 103(a) as being unpatentable over Michaud et al. (U.S. Patent No. 6,003,018, hereinafter "Michaud") in view of Labe Jr., et al. (U.S. Patent Application Publication No. 2002/0091605), Olsen, et al. (U.S. Patent Application Publication No.2002/0123951), and the Admitted Prior Art disclosed in the Background of the Application. Applicants respectfully traverse these rejections.

The Applicants' Remarks, set forth below, are preceded by related comments of the Examiner set forth in small indented bold-faced type.

## **Claim Objections**

The Examiner has objected to claims 1-6 because of a number of informalities the Examiner lists in pages 2-3 of the Office action. Applicants respectfully submit that claims 1-6 have been appropriately amended to address the Examiner's objections. Thus, Applicants respectfully submit that the Examiner's objections to claims 1-6 have been overcome.

In addition, the Examiner has objected to claims 13 and 33:

Similar to the objection to claim 13 previously presented in the Office Action of 12/19/2005, claim 33 is objected to on the grounds that the equations presented therein fail to particularly define each of the symbols used in the claim. Further, it is noted that several of the symbols in the claimed equations remain undefined in amended claim 13. Appropriate correction is required.

Office Action, page 3.

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Applicants respectfully submit that claims 13 and 33 have been appropriately amended to address the Examiner's objections listed in page 3 of the Office Action. Applicants respectfully submit that the Examiner's objections to claims 13 and 33 have been overcome.

### Allowable Subject Matter

Claims 17 and 37 would be allowable if rewritten to overcome the objections and rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office Action, and to include all of the limitations of the base claim and any intervening claims.

Office Action, page 13.

The Examiner is thanked for considering that claims 17 and 37 would be allowable, if written in independent form, including all of the limitations of the base claim and any intervening claims, as well as if rewritten to overcome the objections and rejection(s) raised by the Examiner under 35 U.S.C. 112, 2nd paragraph. Applicants respectfully submit that claims 17 and 37 have been rewritten in independent form incorporating all of the limitations of their respective base claims and intervening claims: claims 1 and 21, respectively. Furthermore, the contents of claims 1 and 21 have been rewritten to overcome the objections and rejections under 35 U.S.C. 112, 2nd paragraph, set forth by the Examiner in this Office Action, as detailed below.

#### Claim Rejections – 35 USC § 112

Claims 1-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 21, it is unclear as to whether only a covariance matrix is assigned to the universe, or whether a covariance matrix and a correlation matrix are separately assigned. For the purposes of examination, it is interpreted as only the covariance matrix, which is composed of both the variances and the correlation matrix.

Office Action, page 4.

Applicants respectfully submit that claims 1 and 21, which are now incorporated in 17 and 37, respectively, have been appropriately amended to address the Examiner's rejection. Claims 17 and 37 now recite "assigning" or "assign" "a covariance matrix to the universe, said covariance matrix comprising a variance for each of the instruments and a correlation matrix." Thus, Applicants respectfully submit that the Examiner's 35 U.S.C. 112, second paragraph rejection of claims 1 and 21 has been overcome.

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Regarding claim 13, the claim defines the term  $w^T$  to the a vector of instrument weights. However, the term is not utilized in any of the preceding equations, and, thus, it is unclear as to its relation to the claim.

Office Action, page 4.

Applicants respectfully submit that claim 13 has been appropriately amended to address the Examiner's rejection. The reference to the term  $w^T$  has been removed, and the definition of the term  $w_i$  has been added. Thus, Applicants respectfully submit that the Examiner's 35 U.S.C. 112, second paragraph rejection of claim 13 has been overcome.

Regarding claim 21, the claim recites a program code causing the computer to form an index, and then proceeds to recite further steps a-i are merely additional steps. In particular, the sentence structure and punctuation utilized render the above unclear. Namely, the step to "form an index" with a semi-colon, which would seem to indicate that steps a-i that follow are sub-steps thereof. If not, the routine laid out in steps a-i would be duplicative of the first step of forming an index. For the purposes of examination, steps a-i are assumed to be sub-steps of the step of forming an index.

Office Action, page 4.

Applicants respectfully submit that claim 21, which is now incorporated in claim 37, has been appropriately amended to address the Examiner's rejection. The claim now recites: "form an index, the index including a subset of instruments selected from a universe of N instruments, the instructions for causing the computer to form an index comprising instructions for causing a computer to: ...", which is more suitable language to indicate that steps a-i (now a-j) are substeps of the step "form an index." Thus, Applicants respectfully submit that the Examiner's 35 U.S.C. 112, second paragraph rejection of claim 21 has been overcome.

### Claim Rejections - 35 USC § 103

Claims 1-4, 13-16, 18-24, 33-36 and 38-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michaud et al. (US Patent No. 6,003,018) in view of Labe Jr., et al. (US Patent Application Publication No.2002/0091605), Olsen, et al. (US Patent Application Publication No.2002/0123951), and the Admitted Prior Art disclosed in the Background of the Application (the "APA").

Office Action, page 5.

Applicants respectfully submit that the Examiner's 35 USC § 103 rejection of claims 1-4, 13-16, 18-24, 33-36 and 38-40 is most in view of the current claim Amendment, by which claims 1 and 21 have been canceled and claims 2-4, 13-16 and 18-20 are now dependent on claim 17, and claims 24, 33-36 and 38-40 are dependent on claim 37, each of which have been

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placed in conformity with the Examiner's conditions for allowance. Claims 2-16 and 18-20 depend directly or indirectly from claim 17 and define further features and structure of the method. Claims 22-36 and 38-40 depend directly or indirectly from claim 37 and define further features and structure of the system. Accordingly, these claims are not obvious and patentable for the reasons noted above with respect to claims 17 and 37 as well as for the additional features recited therein. Notice to the effect that dependent claims 2-20 and 22-40 are in condition for immediate allowance is respectfully requested.

#### Claim Amendment

It is respectfully submitted that notwithstanding that Applicants sustain that they have been the first to invent a method and system for forming an index, the index including a subset of instruments selected from a universe of N instruments, the method comprising the steps of: a) assigning a covariance matrix composed of a variance for each of the instruments and a correlation matrix to the universe; b) removing one of the instruments from the universe; c) calculating a residual variance for each of the instruments remaining in the universe; d) calculating a residual variance for the universe based on the residual variance for each of the instruments and the correlation matrix; e) reinstating the instrument into the universe; f) repeating steps b-e for each instrument in the universe; g) inserting into the index the one of the instruments for which the residual variance of the universe is minimized; h) eliminating from the universe the one of the instruments for which the residual variance of the universe is minimized; and i) repeating steps b-h until the index is formed, and maintain the arguments presented in previous amendments, Applicants have amended the claims in conformance with the Examiner's suggestions in order to expedite prosecution of the present application.

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# Closing

Claims 1 and 21 have been canceled. Claims 2-6, 13-15, 17-20, 22, 33-35 and 37-40 have been amended. Claims 2-20 and 22-40 are pending and believed to be in condition for allowance. Applicants have made a diligent effort to place this application in better condition for immediate allowance and notice to this effect is earnestly solicited. The Examiner is respectfully requested to reconsider the application at an early date with a view towards issuing a favorable action thereon. If upon the review of the application, the Examiner is unable to issue an immediate notice of allowance, he is respectfully requested to telephone the undersigned attorney at (212) 895-1376 with a view towards resolving the outstanding issues.

The Commissioner is authorized to charge and fees required in connection with this submission to Deposit Account No. 50-0521.

Respectfully submitted,

Date:

August 9, 2007

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